ACC NR: AP6005500 (A) SOURCE CODE: CZ/0078/66/000/001/0021/0022

INVENTOR: Hrach, Jiří (Engineer; Prague)

ORG: none

TITLE: Equipment for the automatic sorting of toroid ferrite cores CZ Pat. No. PV 2563-64

SOURCE: Vynalezy, no. 1, 1966, 21-22

TOPIC TAGS: electric equipment, automatic control equipment, ferrite core memory, programmed automatic control

ABSTRACT: Equipment for the automatic sorting of toroid ferrite cores, created by a shift register whose output conductors are connected across a selecting field and gate with a generator of specific current impulses, with a starter circuit of the shift register, with a counter of cycles of impulse with the shift register, and with evaluating and feeding circuits formed by the memory of the results of measurement, by the program field, by the search circuit of the correct results, by the feed memories and the control circuits of the mechanical functions of the feeder of the cores, noted for the part of the output conductors of the cycle counter is connected through the addition circuit with the gates across which the shift register and selecting field are connected with the generator of the specific impulses, another part of the output conductors of the cycle counter is connected with the control

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ACC NR: AP6005500

circuit of the mechanical function of the mechanical feeder of the cores, the results of measurement enter into the memory of the results of measurements, which are joined with the program field and from here, partly through the feed gates with the control circuits of the mechanical function, partly with the search circuit of the correctness of measurement whose output is joined across a gate with the feed gates and connected across an inverter and a gate with the input of one of the feed memories, in which the memory of measurement results, the feed memory, and the gates are further connected to the output gate, whose inputs are connected partly to several of the output guides of the shift register and partly to several of the output guides of the cycle counter.

SUB CODE: 09/ SUBM DATE: 03May64

Card 2/2

Z/014/63/000/003/003/003
E192/E382

AUTHOR: Hrach, Jiří, Engineer

TITLE: An accurate time switch

PERIODICAL: Sdělovací technika, no. 3, 1963, 104

TEXT: The principle adopted in the design of the switch makes it possible to avoid stabilized supply sources for charging the timing network RC. It is illustrated in Fig. 2. At a time $t = 0$ the capacitor C_1 is charged to a voltage U_a and the capacitor C_2 to a potential $-U_a$. Now, the transient commences, leading to the balancing of the condenser charges, as shown in Fig. 2. Thus, the voltage across C_2 increases exponentially from $-U_a$ to $U_a(C_1 - C_2)/(C_1 + C_2)$ and, conversely, the voltage across C_1 decreases exponentially to this level. The intersection point of the exponential transient with the zero voltage level is independent of the magnitude of U_a. However, in practice the transient is terminated at a voltage $-U_z$ (if an electron tube is

Card 1/2

An accurate time switch

employed in the timer). In this case, the change of U_a and U_z results in only a very small variation of the timing interval t. A timer based on a single vacuum tube and a relay was designed on this principle. Timing intervals ranging from 1 to 160 sec in 1 sec steps were easily achieved and the change of $U_{..}$ of $\pm$ 20% resulted in a $\pm$ 0.35% change in the timing interval. There are 4 figures.

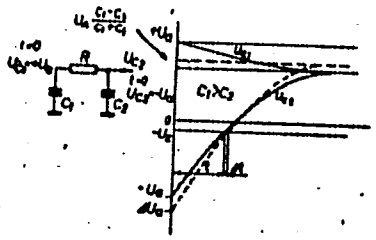

Fig. 2:

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L 23670-66 EWA(h)

ACC NR: AP6009337 (A) SOURCE CODE: CZ/0078/65/000/011/0011/0011

AUTHOR: Hrach, Jiri (Engineer); Mikolas, Frantisek (Engineer; Prague)

ORG: none

TITLE: Variable-voltage pulse generator. CZ Pat. No. PV2759-65, Class 21a, sup 1

SOURCE: Vynalezy, no. 11, 1965, 11

TOPIC TAGS: transistor, resistor, transformer

ABSTRACT: An Author Certificate has been issued for a transistorized pulse generator which is fed from a variable-voltage source. The transistor is connected with the variable-voltage source by a resistor, while its base is transformer-coupled to an exciter stage which, in turn, is controlled by pulses from a pulser, and by another variable-voltage source. The transformer primary is connected with a variable voltage source whose output voltage is controlled by the output voltage of the first-mentioned variable-voltage source. [KP]

SUB CODE: 09/ SUBM DATE: 28Apr65/

Card 1/1 FV

ACC NR: AP6005483 (A) SOURCE CODE: CZ/0078/66/000/001/0009/0009

43
B

INVENTOR: Hrach, Jiri (engineer) (Prague)

ORG: none

TITLE: [A dynamic retardation element] CZ Pat. No. PV 1333-63, Cl., 21a

SOURCE: Vynalezy, no. 1, 1966, 9

TOPIC TAGS: delay circuit, transistor, transistorized circuit

ABSTRACT: A dynamic retardation element is described which is constituted by a transistor whose emitter is connected to a tuned circuit and whose base is either connected through a coupling diode to the winding of an induction coil connected to the coil of the tuned circuit, or connected through an input diode to a resistance and to an input condenser with an emitter-repeater. The distinguishing feature of the device is that the collector of the transistor whose emitter is connected to the tuned circuit, is connected through a diode to the base of the transistor which constitutes the emitter-repeater and to the base of this transistor are further connected a condenser and a discharge diode. The input condenser is connected by the condenser plate to a resistance and through a commutation diode is connected to the discharge diode and the time pulse generator.

SUB CODE: 09/ SUBM DATE: 08Mar63

Card 1/1 UDC

HRACH, Otto; SKRIVANEK, Jan

New toroidal current-measuring transformers. Elektrotechnik 17 no.12:335-338 D '62.

1. Zavody prumyslove automatizace, zavod Krizik Smichov.

[illegible], M.; HRACHOVINOV[illegible], M.

Colorimetric tests. Pt. 7. Coll Cz Chem 29 no.10:2484-2487 O '64.

1. Institut fur analytische Chemie, Karlsuniversitat, Prague.

HRACHOVEC, B.

"Care of Implements Reduces the Proper Expenses." p. 21 (ZELEZNICE, Vol. 3, No. 1, 1953) Praha, Czechoslovakia

SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 4, April 1954. Unclassified.

HRACHOVINA, Vaclav

Contribution to the treatment of ecliptic retinitis. Cesk.ofth. 17 no.1:61-63 Ja '61.

1. Ocni oddeleni OUNZ v Opave, prednosta MUDr. Josef Stefek.
(RETINITIS in inf & child)

KOSTKA, J.; HRACHOVINA, V.

The syndrome of toxic epidermolysis bullosa as a toxic-allergic reaction after Spofadazin (sulfamethoxypyridazine). Cesk. derm. 36 no.8:546-552 D '61.

1. Infekcni oddeleni OUNZ v Moste, prednosta MUDr. Vladimir Hrachovina, kozni oddeleni OUNZ v Moste, prednosta MUDr. Valter Frolich.
(SULFAMETHOXYPYRIDAZINE toxicol.) (EPIDEMOLYSIS BULLOSA etiology)

HRACHOVINA, V.

Effect of guaiacuran and chlorpromazine on handwriting and drawing of myopic children with nystagmus. Cesk. oftal. 18 no.3:201-206 My '62.

1. Zakladni devitileta stredni skola pro zaky slabozrake a vadne mluvici pri OUNZ v Opave, reditel M. Kral Ocni oddeleni OUNZ v Opave, prednosta MUDr. J. Stefek.
(NYSTAGMUS in inf & child) (MYOPIA in inf & child)
(HANDWRITING) (PROJECTIVE TECHNIQUES)
(CHLORPROMAZINE pharmacol)
(MUSCLE RELAXANTS pharmacol)

HRACHOVINA, V.

Enzyme therapy of stenotic processes of the inferior lacrimal canaliculi and the nasolacrimal duct. Cesk. oftal. 19 no.5: 353-358 S '63.

1. Oeni oddeleni OUNZ v Opave, vedouci MUDr. J. Stefek.
(LACRIMAL DUCT OBSTRUCTION) (NEOMYCIN)
(BACITRACIN) (CORTISONE) (TRYPSIN)
(ACRIDINES) (ANTISEPTICS)

HRACHOVINA, V.

The most frequent cause of epiphora and our experience with its treatment with the Tichomirov and Pochisov methods of surgery. Cesk. oftal. 19 no.4:274-279 Jl '63.

1. Ocni oddeleni OUNZ v Opave, vedouci MUDr. J. Stefek.
(LACRIMAL DUCT OBSTRUCTION)
(SURGERY, OPERATIVE)

HRACHOVINA, V.

Hyaluronidase in the treatment of the fundus oculi. Cesk. oftal. 21 no.6:471-476 N '65.

1. Oeni oddeleni Obvodniho ustavu narodniho zdravi v Opave (vedouci MUDr. J. Stefek).

RIEBEL, O.; HRACHOVINA, V.

Long-term results after dacryocystorhinostomy. Cesk. oftal. 21 no.6:446-450 N '65.

1. Ocni klinika lekarske fakulty University J.E. Purkyne v Brne (prednosta prof. dr. J. Vanysek, DrSc.).

ACC NR: AP6027312 SOURCE CODE: UR/0428/66/000/002/0091/0098

AUTHOR: Hrachykhin, L. I.; Nekrashevich, Ya. I.

ORG: none

TITLE: Measuring coefficients of argon absorption in a shock tube

SOURCE: AN BSSR. Vestsi. Seryya fizika-matematychnyckh navuk, no. 2, 1966, 91-98

TOPIC TAGS: absorption coefficient, plasma wave absorption, monochromatic radiation, gas chromatography, argon, shock tube

ABSTRACT: It is important to know the light-emissive and absorptive capacities of a hot gas at high temperature. Therefore, methods must be experimentally developed to measure the coefficients of plasma absorption at different temperatures and pressures. This work sets forth two methods of finding the monochromatic coefficients of absorption in reference to the shock tube. The first method is based on use of the self-illumination of the emitting volume by means of a single mirror; the second, on finding the relative light-emissive intensity of a heated gas of various densities. Measurements were made in a steel shock tube with chromium-plated interior permitting the greatest possible use of a low-pressure glass chamber. Argon was the gas employed. This paper proposes a simple and comparatively accurate (15%) method of measuring the absorption coefficients of hot gases in a shock tube. Measurements of this coefficient for argon at ~10,700 K in the spectral range of

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Card

ACC NR: AP6027312

4000—6000 Å are in good agreement with the results of L. M. Biberman and G. E. Norman (J. Quant. Spectrosc. Transfer, 3, 221, 1963). Simultaneous registration of different wavelength regions (using quantometer-like equipment) with direct temperature measurements in each experiment gives more accurate results than Biberman and Norman. It is found that under certain experimental conditions up to $M_s \sim 8$ a sample of the hot gas with the reflected shock wave along the tube axis is a homogeneous plasma. The authors thank M. A. El'yashevich for interest in the work and useful advice. Orig. art. has: 9 formulas, 2 tables, and 3 figures.

SUB CODE: 07/ SUBM DATE: 04Oct65/ ORIG REF: 002/ OTH REF: 008

Card 2/2

HRADCOVA, L.; SOVA L.

Angiotesin skin test and its relation to hypertension. Cesk. pediat. 18 no.11:988-995 N'63.

1. IV. detska klinika fakulty vseobecneho lekarstvi KU v Praze; Prednosta: prof.dr. F.Hlazek; a II. interni klinika fakulty vseobecneho lekarstvi KU v Praze; prednosta: prof.dr. F.Herles, DrSc.

HRADCOVA, L.

2351. HRADCOVÁ L. Kojen. Odd. Obvodní nemocnice v Praze-Krči. *Moučnivkové enterokolitidy nedonošených dětí jako komplikace podávání antibiotik.
Mycotic enterocolitis in premature infants caused by the use of antibiotics PEDIAT. LISTY 1954, 9/6 (345-347)

Nine cases of mycotic enterocolitis all ended in death. Penicillin, streptomycin and chloramphenicol were used in combination. The disease appeared with vomiting and watery stools with mucus; signs of peritonitis and paralytic ileus developed, leading to death. The erterocolitis began on the 7th to 35th day of treatment with the above mentioned antibiotics. There was one case of perforation of the stomach and 5 of perforation of the bowel. One of these was operated on, but the necrosis of the intestinal wall was so great that operation had to be abandoned. There was neonatal encephalopathy in 66.6%. The author thinks that an important factor in the development of the condition was a lowering of resistance of the organism for some reason. Procházka - Prague (XX, 7)

HRADCOVA, Libuse, Dr.; SCHUCK, Ota, Dr.; PACOVSKY, Vladimir, Dr.

Kinetics of inulin in blood plasma in children. Cesk. pediat. 11 no.4:255-260 Apr 56.

1. Ze IV. detske interni kliniky prednosta prof. Dr. F. Blazek, z, I. interni kliniky, prednosta prof. Dr. M. Netousek, z III. interni kliniky, prednosta akademik J. Charvat.

(INULIN, in blood,
retention rate in child. (Cz))
(BLOOD,
inulin retention rate in child. (Cz))

EXCERPTA MEDICA Sec 7 Vol 13/1 Pediatrics Jan 59

97. PLASMATIC CLEARANCE OF INULIN - Hradcova L., Schück O. and Pacovsky V. IV. Ped. Clin., I. Med. Clin., III. Med. Clin., Prague - HELV. PAEDIAT. ACTA 1957, 12/6 (679-686) Tables 1 Illus. 5

The disappearance of inulin from the plasma after a single injection was followed in 23 cases. In children inulin does not disappear from the plasma exponentially and therefore the rate of excretion cannot be expressed by the half-time or velocity constancy factors. Plasmatic clearance was established in 19 cases without any signs of disturbance of glomerular filtration, on the basis of the injected quantity of inulin and the area outlined by the curve of concentration of inulin in the plasma with the axis of time. The average value is 137 ml. per min. per 1.73 sq.m. (σ = 27). In 10 cases plasmatic clearance was correlated with the simultaneously established renal clearance. The correlation between the two methods is statistically significant.

(VII, 2*)

PACOVSKY, V.; HRALOVA, L.; SOBKA, J.

Familial orthostatic proteinuria -- a new tubular syndrome?
Cas. lek. cesk. 103 no.36:1005-1006 4 S '64.

1. III interni klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta akademik J. Charvat); IV detska klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta prof. dr. F. Blazek).

HRADCOVA, Libuse; SCHUCK, Ota

Separate estimation of renal tubular reabsorption of water in children. Cesk. pediat. 13 no.7:588-594 Aug 58.

1. IV. detska klinika, prednosta prof. MUDr. F. Balzek. Klinika detske chirurgie, prednosta doc. MUDr. V. Kafka, I. interni klinika, prednosta prof. MUDr M. Hetousek.

(PYELONEPHRITIS, in inf. & child
renal tubular water reabsorp. in (Cz))
(URINARY TRACT, abnorm..
renal tubular water reabsorp. in child. (Cz))
(KIDNEYS, physiol.
renal tubular water reabsorp. in child. with pyelonephritis & urinary tract abnorm. (Cz))

HELLER, J.; HRADCOVA, L.

Antidiuretic activity of rat and human plasma during the course of antogenesis. Cesk. fysiol. 9 no.1:16 Ja 60.

1. Fysiologicky ustav a IV. detska klinika fak. vseob. lek. KU, Praha.

(VASOPRESSIN, blood)

HRADCOVA, L.

Renal function in nephrolithiasis in children. Acta univ. carol. [med.] Suppl. 14:389-400 '61.

1. IV. detska klinika fakulty vseobecneho lekarstvi University Karlovy v Praze, prednosta prof. dr. F. Blazek.

(URINARY CALCULI in inf & child)
(KIDNEY FUNCTION TESTS in inf & child)

HRADCOVA, Libuse; HELLER, Jiri

Values of the antidiuretic activity of the blood plasma in children. Cesk. pediat. 17 no.5/6:531-535 Je '62.

1. IV detska klinika v Praze, prednosta prof. MUDr. F. Blazek Oddeleni fyziologie detskeho veku Fyziologickeho ustavu KU v Praze, prednosta prof. MUDr. F. Karasek.

(VASOPRESSIN blood)

HRADCOVA, Libuse

Significance of prolonged therapy of chronic pyelonephritis in children. Cesk. pediat. 17 no.7/8:704-710 Ag '62.

1. IV. detska klinika fakulty vseobecneho lekarstvi KU v Praze, prednosta prof. dr. F. Blazek.
(PYELONEPHTITIS) (SULFONAMIDES)

HRADCOVA, Libuse; HRADEC, Eduard

Contribution to surgical therapy of megaureters in children. Cesk. pediat. 17 no.9:802-807 S '62.

1. IV. detska klinika Detske fakultni nemocnice v Praze, prednosta prof. dr. F. Blazek II. chirurgicka klinika Fakultni nemocnice v Praze 2, prednosta prof. dr. J. Lhotka.
(URETER)

HRALCOVA, L.; HRADEC, E.

Vesicorenal reflux in relation to chronic pyelonephritis in children. Cesk. pediat. 20 no.2:106-110 F '65

1. IV. detska klinika (prednosta: prof. dr. F. Hlavek); II. chirurgicka klinika (prednosta: prof. dr. J. Lhotka) fakulty vseobecneho lekarstvi Karlovy University v Praze.

ANDRYSEK, O.; ANDRYSKOVA, J.; BENDL,J.; BLEKTA, M.; HRADCOVA, L.; CHYTIL,M.; ORT, M.; RASKA, B.; VALNICEK, J.

Isotope examination methods of the uropoietic system in pediatrics and obstetrics. Acta univ. Carol. [med] (Praha): Suppl. 18: 41-44 '64.

1. Biofysikalni ustav fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: doc. dr. Z. Dienstbier); II. gynekologicko-porodnicka klinika fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: prof. dr. J. Lukas); II. interni klinika fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: prof. dr. F. Herles); IV. detska klinika fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: prof. dr. F. Herles); IV. detska klinika fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: prof. dr. F. Blazek) a I. detska klinika fakulty pediatricke University Karlovy v Praze (prednosta: prof. dr. J. Svejcar).

TOBERNY, Z.; HRADCOVA, L.

Polyarteritis nodosa of the kidney. Sborn. lek. 67 no.8/9: 259-262 Ag '65.

1. II. chirurgicka klinika (prednosta prof. dr. J. Lhotka), IV. detska klinika (prednosta prof. dr. F. Blazek) fakulty vseobecneho lekarstvi University Karlovy v Praze.

29040
S/081/61/000/018/019/027
B103/B101

9,4170 (1035,1051)

AUTHOR: Hradčovský, Rudolf

TITLE: Luminescent composition based on zinc sulfide and sensitive to infrared radiation

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 18, 1961, 310, abstract 18K127 (Czechosl. pat. 95316, 15.05.60)

TEXT: For photorecording of infrared radiation (IR), ZnS is activated by addition of 10^{-3} - 10^{-7}% of Cu, Pb, or Co. The permissible content of metallic impurities in ZnS, which reduce its sensitivity to IR radiation, is $<10^{-6}$% (the Ni concentration should be $\leqslant 10^{-8}$%). The degree of purity of both activators and fusing agents should be equal to that of the luminescent ZnS. Example: ZnS precipitated by H_2S from a Zn sulfate solution is washed, dried at ~120°C, mixed with Cu and Pb and with a suitable fusing agent, and calcined at ~800°C. Mixing and calcining is repeated several times until attaining the required sensitivity to IR

Card 1/2

HRADEC, E.; LHOTKA, J.

Clinical experiences with preserved arterial grafts. Sborn. lek. 55 no.1-2:1-21 Feb 1953. (CLML 24:3)

1. Of the Second Surgical Clinic (Head--Prof. J. Divis, M. D.) of Charles University, Prague.

* Naše zkušenosti v rozpoznávání a léčení adrenogenitálního syndromu v dětském věku. Diagnosis and treatment of the adrenogenital syndrome in childhood SBORN. LÉK. 1953, 55/4 (93-119) Tables 4 Illus. 10.

This is a full discussion of the clinical, biochemical, psychosexual and therapeutic problems arising from the adreno-genital syndrome for the pediatrician, surgeon, radiologist, biochemist and gynaecologist. For the investigation to assess the size of the adrenals or the presence of a tumour the authors advocate pneumo-retroperitoneal insufflation according to the method of De Gennes-May and Simon, in preference to perirenal air insufflation. Thirteen cases seen between 1945 and 1952 are reported, 12 in girls and one in a boy. The ages ranged from 8 months to 10 yr. Two of the girls were diagnosed as suffering from carcinoma of the adrenal cortex, the others from adrenal hyperplasia. In 4 cases partial resection of one hyperplastic adrenal was carried out, removing approximately half the gland. Though the virilizing process was arrested postoperatively no regression of established clinical signs was noticed. Holzel - Manchester (VII,3, 9, 10, 14)

SO: Excerpta Medica; Section VIII Vol. 7 No. 11.

HRADEC, Edward, assist. dr.; CHYTIL, Mirko, assist. dr.; ZAHOR, Zdenek, assist. dr.

Evaluation of the results of decapsulation and denervation of the kidneys with indications and contraindications. Sborn. lek. 61 no.10:250-266 Dec 54.

1. Z II chirurgicke kliniky, prednosta prof. dr. J.Davis. Z II interni kliniky, prednosta prof. dr. A.Vancura, Z II pathologicko-anatomickeho ustavu, prednosta prof. dr. V.Jedlicka.
(KIDNEYS, diseases
surg. decapsulation & denervation, indic. & contraindic.)

MRÁZEK, L.

"Diagnostic Importance of Examining by Pneumoretroperitoneum." p. 159.
(Casopis Lekaru Ceskych. Vol. 93, no. 6, Feb. 1954. Praha).

SO: Monthly List of East European Accessions, Library of Congress, June 1953, Vol. 3, No. 6, Uncl.

SCHUCK, Ota; HRADEC, Eduard; s technickou spolupraci: M. Kleinove, M. Semradove, L. Korinka, H. Housove.

Function tests of individual kidneys; utilization in urological practice. Sborn. lek. 57 no.10:245-267 Dec 55.

1. Z I. interni kliniky, prednosta prof. dr. M. Netousek z II. chirurgicke kliniky, prednosta prof. dr. J. Divis.
(KIDNEY FUNCTION TESTS,
of individual kidneys)

HRADEC, Eduard

Ischemia of the lower extremity in venous thrombosis. Cas. lek. cesk. 94 no.7:169-172 11 Feb 55

1. Z II chirurg. kliniky; predn. prof. Dr.Jiri Divis
(LEG, blood supply
venous thrombosis, with ischemia)
(THROMBOSIS
leb, venous, with ischemia)

HRADEC, Eduard, Dr.;SCHLUPEK, Alexandr, Dr.

Terminal ileitis complicated by fistula between the small intestine and bladder. Rozhl. chir. 35 no.5:282-286 May 56.

1. Z II. chirurgicke kliniky, prednosta akademik J. Divis. Z II. pathologickoanatomickeho ustavu, prednosta prof. Dr. V. Jedlicka.

(ILEITIS, compl.
terminal, causing vesicointestinal fistula, surg. (Cz))
(BLADDER, fistula
vesicointestinal, caused by terminal ileitis, surg. (Cz))
(INTESTINE, SMALL, fistula
same)

HRADEC, E.

Ureteral injuries in gynecological operations. Cesk. gynek. 43 no.10[illegible]747 D '64

1. II. khirurg. klin. fak. vseob. lek. Karlovy University v Praze (prednosta prof. dr. J.Lhotka).

HRADEC, Eduard, Dr., asistent kliniky.

Primary retoperitoneal tumors. Rozhl. chir. 35 no.5:299-307 May 56.

1. Z II. chirurgicke kliniky, prednosta akademik J. Divis.
(RETROPERITONEAL SPACE, neoplasms
primary tumors, classif. & surg. (Cz))

HRADEC, Eduard, Dr.; CHYTIL, Mirko, Dr.; FIALOVA-PRECECHTELOVA, Vera, Dr.

Hypertension caused by unilateral kidney disease. Sborn lek. 58 no.7:177-184 Sept 56.

1. II. Chirurgicka klinika, prednosta akademik J. Dívis - interni klinika, prednosta prof. Dr. A. Vancura.
(KIDNEY DISEASES, compl.
hypertension caused by unilateral kidney dis. (Cz))
(HYPERTENSION, etiol. & pathogen.
unilateral kidney dis. (Cz))

HRADEC, Eduard

Reconstruction of the ureter with the aid of the small intestine.
Rozhl. chir. 38 no.10:719-729 O '59

1. II. chirurgicka klinika fakulty viseobecneho lekarstvi University Karlovy v Praze zast. prednosta doc. dr. J. Lhotka.
(URETERS, surg.)
(INTESTINE SMALL, transpl.)

HRADEC, Eduard; LHOTKA, Jaroslav

Surgery of primary hyperparathyroidism. Conditions for success and causes of failures. Cas. lek. cesk. 98 no.35:1085-1089 28 Aug 59

1. II chirurgicka klinika KU v Praze, prednosta akademik J. Divis
(PARATHYROID GLAND, dis.)

GRADETS, E. [Hradec, E.], kand.med.nauk; LGOTKA, Ya. [Lhotka, J.], kand. med.nauk., dotsent

Recent data on the surgery of primary hyperparathyroidism. Khirurgiia no.11:82-88 '61. (MIRA 14:12)

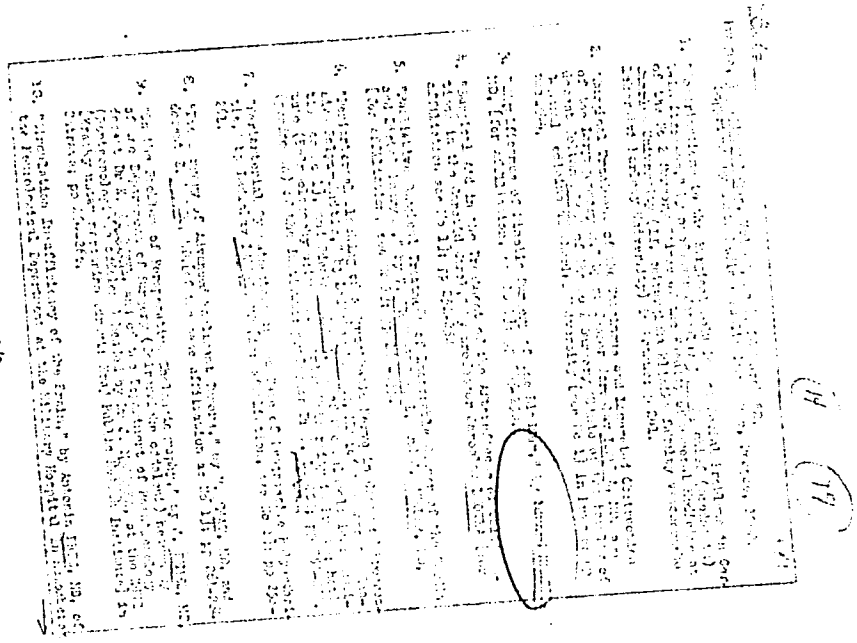
1. Iz 2-y khirurgicheskoy kliniki (zav. - dotsent Ya. Lgotka) Karlova universiteta v Prage.
(HYPERPARATHYROIDISM)

HRADCOVA, Libuse; HRADEC, Eduard

Contribution to surgical therapy of megaureters in children. Cesk. pediat. 17 no.9:802-807 S '62.

1. IV. detska klinika Detske fakultni nemocnice v Praze, prednosta prof. dr. F. Blazek II. chirurgicka klinika Fakultni nemocnice v Praze 2, prednosta prof. dr. J. Lhotka.
(URETER)

HRADEC, E.



PACOVSKY, Vladimir; PETRASEK, Jan; DUBOVSKY, Jiri; HRADEC, Eduard

New concepts on the hyperfunction syndrome of the adrenal medulla and present possibilities of diagnosis. Sborn. lek. 44 no.4:101-108 Ap '62.

1. III interni klinika fakulty vseobecneho lekarstvi Karlovy university v Praze, prednosta akademik J. Charvat. II chirurgicka klinika fakulty vseobecneho lekarstvi Karlovy university v Praze, prednosta prof. dr. J. Lhotka.

(ADRENAL MEDULLA diseases)
(PHEOCHROMOCYTOMA diagnosis)

HRADEC, E.; BOREK, Z.; VENTA, J.;VALENTA, O.; MOTLIK, K.

Clinical aspects with special reference to the diagnosis of urological complications in gynecological cancer. Acta univ. carol. [med.] Suppl. 14:339-363 '61.

1. II. chirurgicka klinika fakulty vseobecneho lekarstvi University Karlovy v Praze, prednosta doc. dr. J. Lhotka I. gynekologicka klinika fakulty vseobecneho lekarstvi University Karlovy v Praze, prednosta prof. dr. K. Klaus Ustav pro peci o matku a dite v Praze, reditel doc. dr. J. Vojta II. patologickoanatomicky ustav fakulty vseobecneho lekarstvi University Karlovy v Praze, prednosta prof. dr. V. Jedlicka.
(GENITALIA FEMALE neopl) (UROLOGY)

HRADEC, E.

Surgical therapy of urinary bladder injuries in radiotherapy.
Acta univ. carol. [med.] Suppl. 14:365-388 '61.

1. II. chirurgicka klinika fakulty vseobecneho lekarstvi University Karlovy v Praze, prednosta doc. dr. J. Lhotka.
(BLADDER radiation eff) (URETERS radiation eff)
(RADIOTHERAPY compl)

CZECHOSLOVAKIA

HRADEC, E., MD.

Prague, Prakticky lekar, No 16, 1963, pp 627-628

"Clinical Treatment and Especially Diagnosis of Urologic Complications of Gynecological Cancer."

KOLAR M.; ANDRYSEK, O.; SOVA, J.; HRADEC, E.; SCHUCK, O.

Clinical application of isotope nephrography. Acta univ. Carol. [med] (Praha): Suppl. 18: 25-31 '64.

1. Biofysikalni ustav fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: doc. dr. Z. Dienstbier); II. interni klinika fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: prof. dr. F. Herles); II. chirurska klinika fakulty vseobecneho lekarstvi University Karlovy v Praze (prednosta: prof. dr. J. Lhotka) a I. interni klinika fakulty vseobecnheo lekarstvi University Karlovy v Praze (prednosta: prof. dr. V. Hoenig).

MOTLIK, K.; JANOUSKOVA, M.; HRADEC, E.; SMAT, V.

Some macroscopic indices on the distribution of medulla in human adrenal glands (morphological contribution to the problem of so-called medullectomy). Rozh. chir. 43 no.4:233-242 Ap '64.

1. II. patologickoanatomicky ustav (prenosta prof. dr. V. Jedlicka) a II. chirurgicka klinika (prednosta prof. dr. J. Lhotka) fakulty vseobecneho lekarstvi KU [Karlova Universita] v Praze.

VOKACOVA, L.; HRADEC, B.

The oldest historical sources of urology in Czechoslovakia.
Cas. lek. cesk. 103 no.45:1259-1261 6 N '64.

1. II. Chirurgicka klinika fakulty vseobecneho lekarstvi Karlovy University v Praze, (prednosta prof. dr. J. Lhotka).

HRADEC, E.

Radical treatment of malignant tumors of the urinary bladder. Its possibilities and results. Cesk. radiol. 19 no.2:116-125 Mr'65.

1. II. chirurgicka klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta: prof. dr. J. Lhotka).

HRADCOVA, L.; HRADEC, E.

Vesicorenal reflux in relation to chronic pyelonephritis in children. Cesk. pediat. 20 no.2:106-110 F '65

1. IV. detska klinika (prednosta: prof. dr. F. Hlazek); II. chirurgicka klinika (prednosta: prof. dr. J. Lhotka) fakulty vseobecneho lekarstvi Karlovy University v Praze.

PACOVSKY, V.; DUBOVSKY, J.; HRADEC, E.

Primary hyperparathyroidism and its significance in urology.
Rozhl. chir. 44 no.6:368-376 Je '65.

1. III. interna klinika (prednosta akad. J. Charvat) a II. chirurgicka klinika (prednosta prof. dr. J. Lhotka) fakulty vseobecneho lekarstvi Karlovy University v Praze.

[illegible], J., [illegible], V.

Treatment of primary hyperparathyroidism. Rozhl. chir. 44 no.6: 377-381 Je '65.

1. II. chirurgicka klinika (prednosta prof. dr. J. Lhotka) a III. interni klinika (prednosta akademik J. Charvat) fakulty vseobecneho lekarstvi Karlove University v Praze.

HRADEC, E.; PETRIK, R.

Contribution to the surgical treatment of uretheral strictures.
Rozhl. chir. 44 no.6:391-398 Je '65.

1. II. chirurgicka klimika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta prof. dr. J. Lhotka).

PETRIK, R.; HRADEC, E.; VINCENCOVA, B.

Plastic operations in hydronephrosis. Rozhl. chir. 44 no.6: 429-432 Je '65.

1. II. chirurgicka klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta prof. dr. J. Lhotka).

HRADEC, E.; PETRIK, R.

Resection of the kidney and ureter in lithiasis. Cas. lek. cesk. 103 no.30:842-846 27 Jl'64

1. II. chirurgicka klinika fakulty vseobecneho lekarstvi KU [Karlovy university] v Praze; prednosta: prof. dr. J.Lhotka.

HRADEC, Jan, MUC

Paper filtration micro-electrophoresis of proteins. Cas.lek.cesk. 91 no.37:1062-1064 12 Sept 52.

1. Z oddeleni pro klinickou chemii (prednosta prof. dr. Jan Sula) pri II. Ustavu lekarske chemie (prednosta prof. dr. A.F.Richter) Karlovy university v Praze.

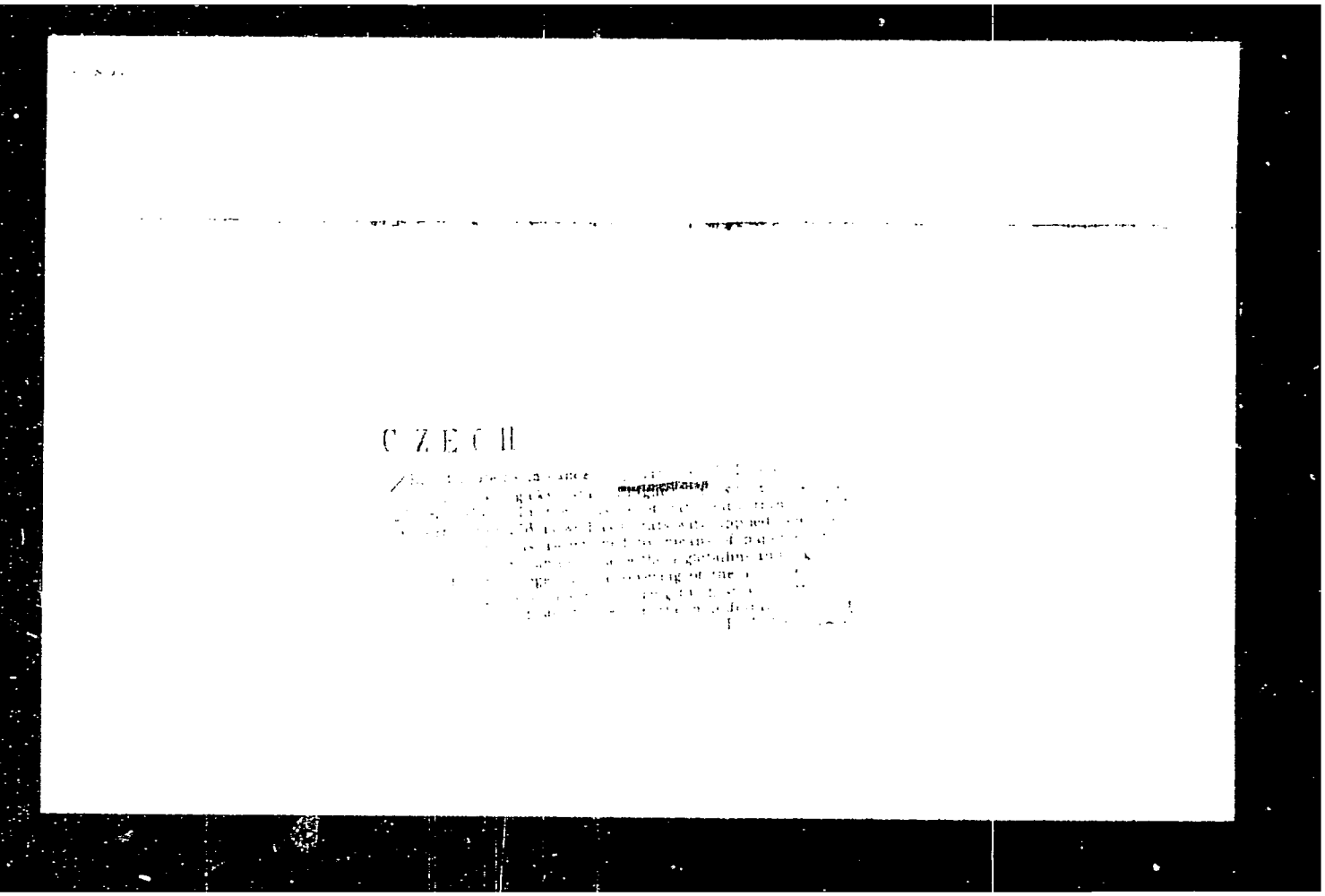
(BLOOD PROTEINS, determination, electrophoresis, micromethod)
(ELECTROPHORESIS, of blood proteins, micromethod)

HRADEC J. Biochem. Odd., Onkol. Ust., Pracoviste, Praha. Serove bilkoviny pri rakovine plic. I. Elektroforeticka-studie ser nemocnych plicnimi chorobami se zretelem k diferencialni diagnostice karcinomu Serum proteins in cancer of the lungs. Electrophoretic study of the serum in patients with pulmonary diseases with a view to the differential diagnosis of cancer Cas. Lek. ces. 1953, 92/32 (867-870) Tables 1

Serum of 86 patients suffering from various pulmonary diseases were analysed by a personal modification of filter-paper electrophoresis. The globulins were found elevated and the albumins depressed in practically all subjects investigated. The electrophoretic pattern cannot itself be regarded as a guide to the differential diagnosis.

Fejfar - Prague (VI, 5, 15, 16)

SO: EXCERPTA MEDICA, Vol. 8, No. 3, Section VI, March 1954

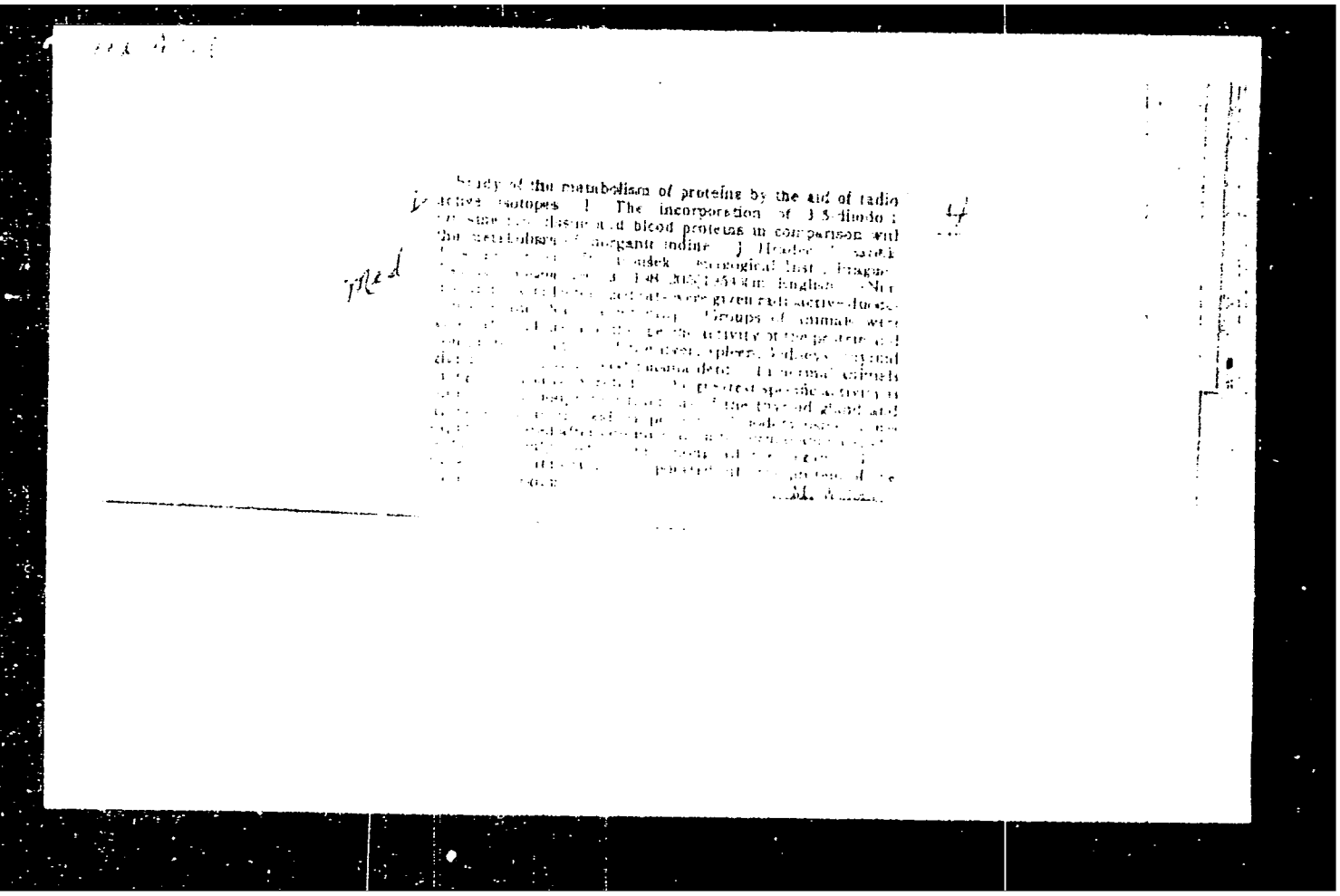


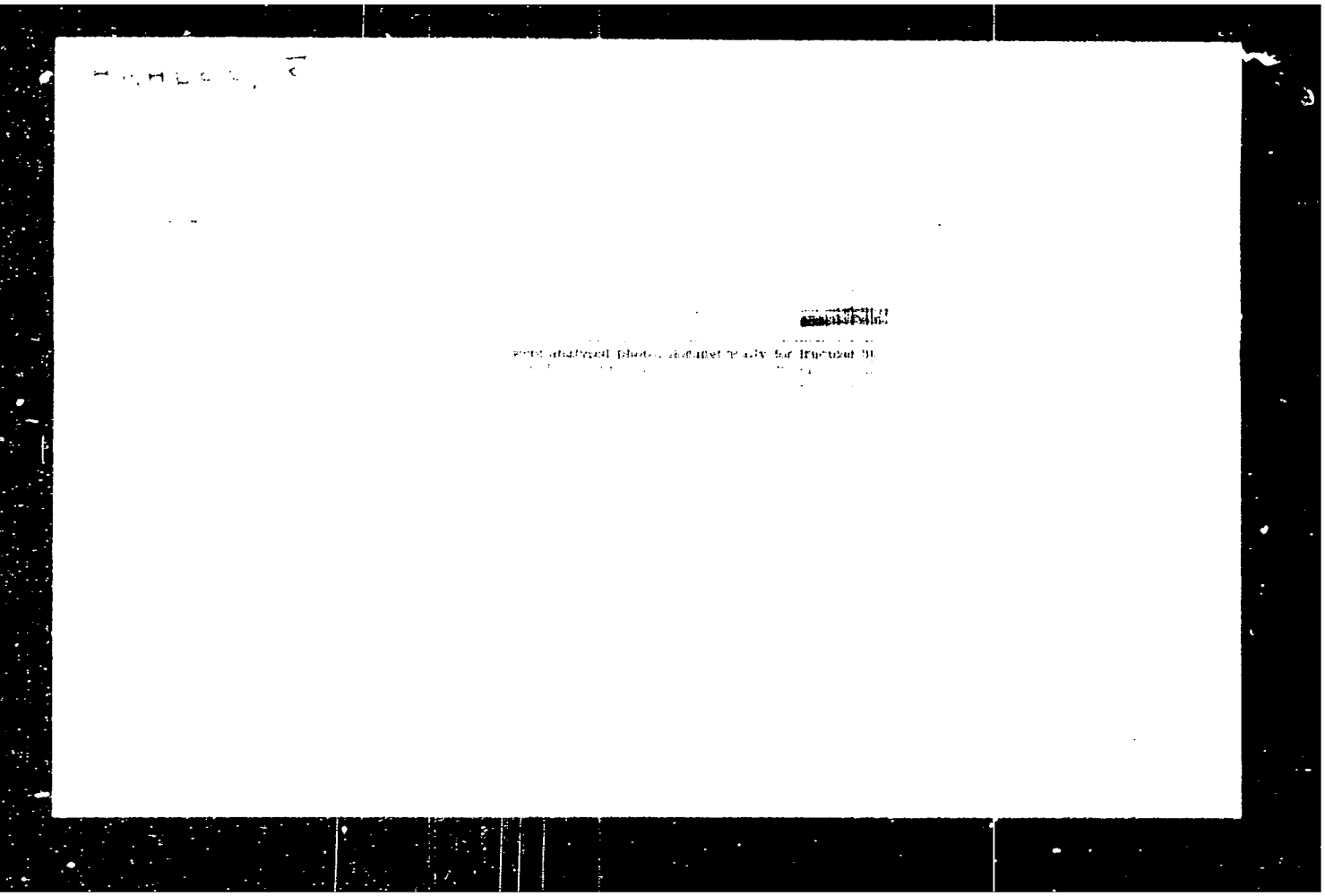
CZECH

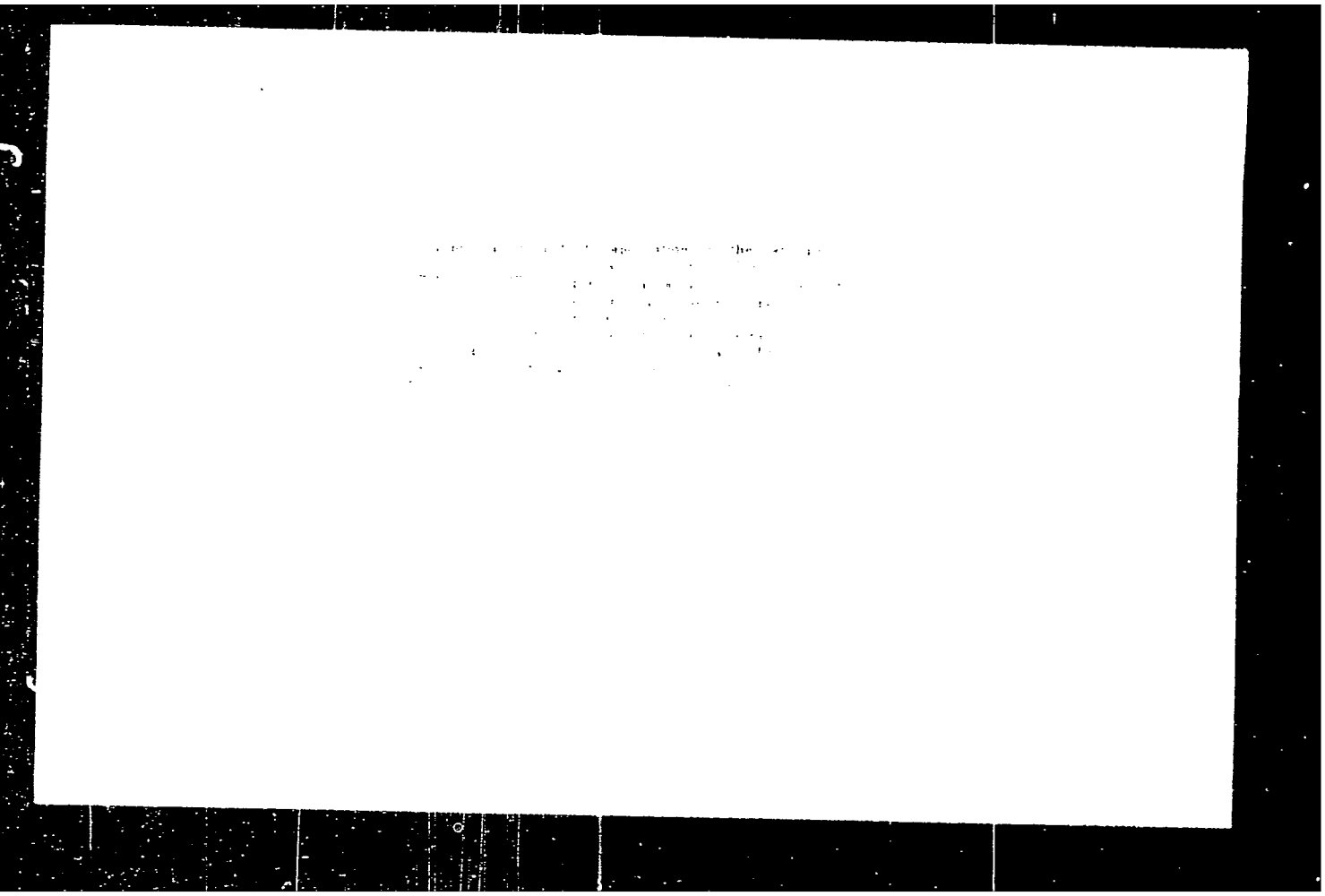
The blood of chick embryos. III. Development of blood serum proteins from the eighth day of incubation. Jan Hradec and Leo Lemeš (Onkologický ústav, Prague). *Českoslov. Morfol.* 2, 260–7(1954).—Blood serum proteins of individual white Leghorn chick embryos of various ages were studied by means of paper electrophoresis with barbital-acetate buffer pH 8.6 μ 0.05. The over-all pattern was shown by direct photometry of stained paper electrophoregrams. Quant. values were obtained by photometry of eluates. In the first stage (8th–11th day of incubation) there are 4 fractions (1, 3, 6, and 7) of which only fraction 6 is comparable, by its mobility, to a fraction of adult hen serum (α_2-globulin). On the 12th–18th day, a fraction of high mobility becomes apparent (4 fractions: 1, 3, 6, and 9). Albumin (fraction 8) appears on the 19th day. Fractions 1, 3, 6, 8, and 9 are seen on the day of hatching, fractions 2 (predominating, mobility of γ-globulin), 5, 6, and 8 on the following day, and globulin fractions 2 (γ), 5 (β), 6 (α_2), 7 (α_1), and fraction 8 (albumins) in the serums of adult hens. The possible relation between these findings and some biol. and biochem. features of embryo proteins is discussed. High concn. of lipoproteins as revealed by lipide staining in early stages (mainly in fraction 3, some also in 1 and 6) suggests the prevalent role of transport function. Correlation with the morphological development is discussed. Ivo M. Hais

"Study of the Metabolism of Proteins with the Aid of Radioactive Isotopes. I. Incorporation of 3.5 Diiodo-l-Tyrosine into Tissue and Blood Proteins in Comparison with the Metabolism of Inorganic Iodine." p. 135, (CESKOSLOVENSKA FYSIOLOGIE, Vol. 3, No. 2, May 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4 No. 5, May 1955, Uncl.







RABOCH, Jan; HRADEC, Jan.

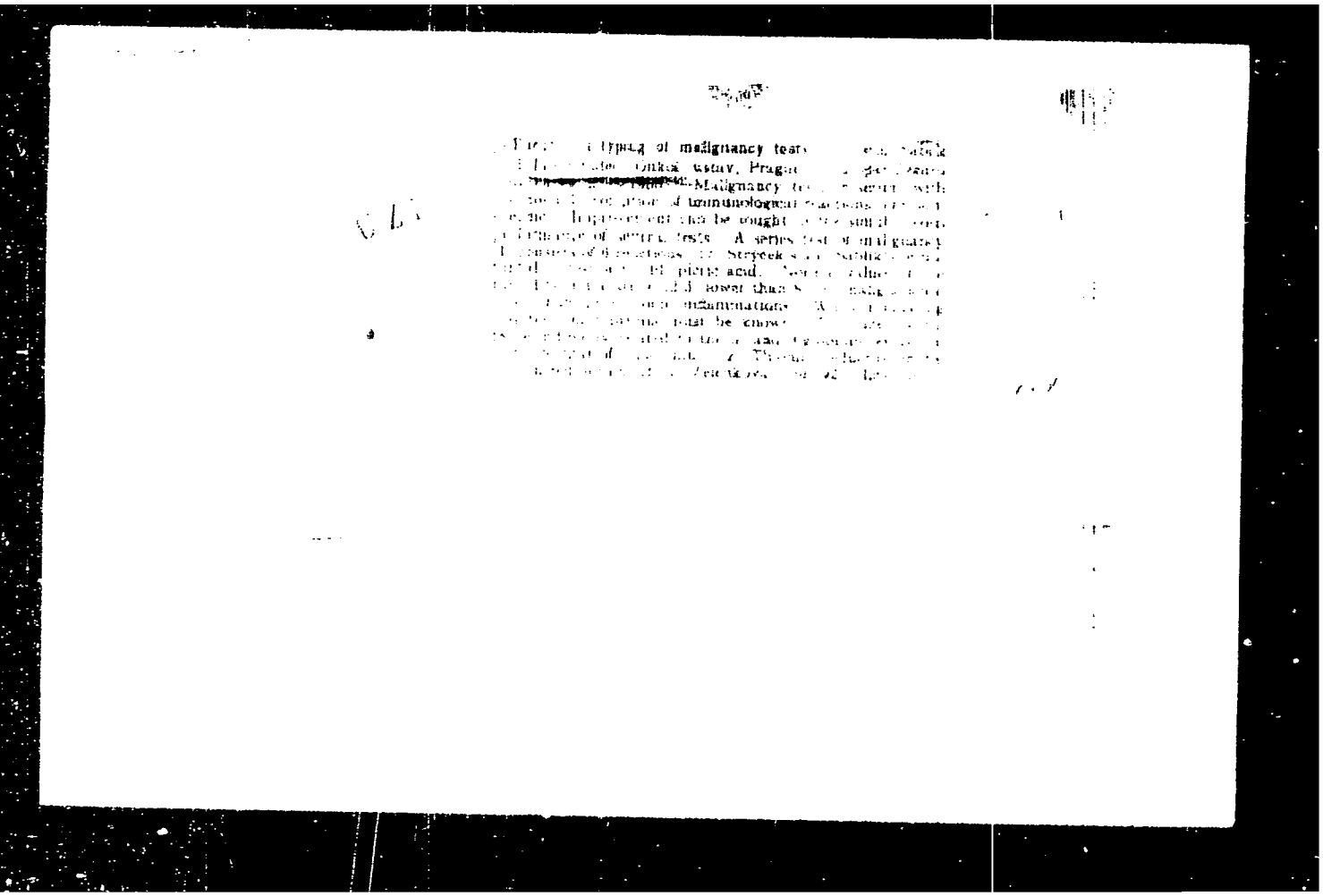
Quantitative determination of fructose in human semen. Cas lek cs 93 no.15:383-390 Ap '54. (MIRAL 3:7)

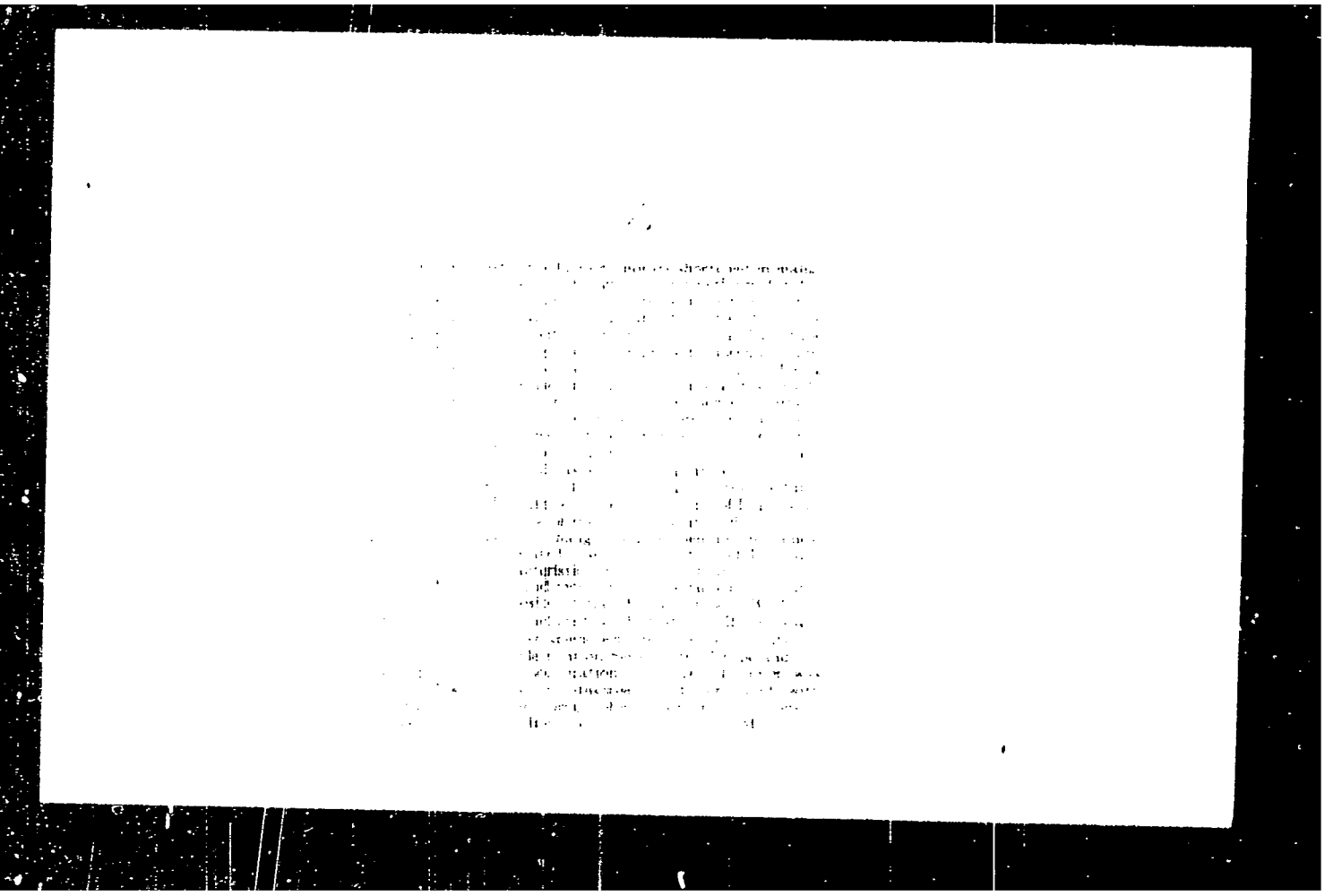
1. Ze Sexuologickeho ustavu Karlovy university v Praze; prednosta prof. Dr Jos. Hynie. 2. Z oddeleni pro klinickou chemii (prednosta: prof. Dr J.Sula) pri II. ustavu pro lekarskou chmii Karlovy university v Praze (prednosta: prof. Dr A.F.Richter)

(SEMEN, *fructose, determ.) (FRUCTOSE, *in semen, determ.)

HRADEC, J.

A new apparatus for serial microelectrophoretic protein analyses on filter paper. Jan Hradec (Onkologický ústav, Praha, Czech.). *Časopis Lékařů České* 93, 877–83 (1954). — Horizontal filter-paper sheets are clamped between evenly ground surfaces of 2 thick glass plates immersed in a chlorobenzene bath. The sheets communicate with the electrode spaces by means of a labyrinth system. Electrodes are placed horizontally. Stained electrophoregrams are evaluated by photometry *in situ*. Filter paper Schleicher-Schüll 2043b, barbital-acetate buffer pH 7.6–8.0, ionic strength 0.04–0.08, and 500–600 v for 60–80 min. are preferred. 25 references. Ivo M. Hais





TROJAN, Karel; HRADEC, Jan

Sarcoma 2056; a new transplantable ascites tumor in rats. Neoplasma, Bratisl. 5 no.2:106-110 1958.

1. Department of Biochemistry, Oncological Institute, Praha. Authors' address: K. Trojan, Dr. J. Hradec, Na Tryhlarce 100, Praha 8, Liben.
(SARCOMA, experimental,
2056, transplantable ascites tumor in rats)

HRADEC, J.; DUSEK, Z.; TROJAN, K.; PTACEK, M.

Tissue factors influencing growth of experimental tumors. Cesk. fysiol. 7 no.4:351-352 July 58.

1. Onkologicky ustav biochemicke oddeleni, Praha.
(NEOPLASMS, experimental,
eff. of various tissue factors on growth (Cz))

2836. METABOLISM OF SERUM ALBUMIN IN TUMOUR-BEARING RATS - Hradec J. Dept. of Biochem., Oncol. Inst., Prague - BRIT.J.CANCER 1958, 12/2 (290-304) Graphs 7 Tables 1

After administration of internally-labelled (S^{35}) serum albumin the biological half-life of this protein in normal rats was 24 hr., while a value of 4.47 days resulted when labelled S^{35} methionine was given i.v. or i.p. The differences are explicable on the basis of free, labelled amino-acids present in the body under the conditions of biosynthesis and degradation. In carcinoma- or sarcoma-bearing rats the values

2836

were reduced to 16 hr. and 3.8 days respectively, with no correlation with the tumour growth rate or size. Animals with regressing tumours showed a prolongation of serum albumin half-life, and, under methionine administration, a less intensive incorporation than normal animals or when tumours were progressing. Liver slices from tumour-bearing animals synthesized in vitro a greater amount of serum albumin than controls (average 1.23 mg./hr./g. of wet tissue compared with 0.42 mg.). It is believed that there is a higher demand for serum albumin in tumour-bearing animals for tumour protein synthesis etc., and a decreased ability of the liver tissue to meet the demand resulting in hypoalbuminaemia.

Woodhouse - Birmingham (V, 2, 16)

AUTHOR: Hradec, Jan CZ/8/52(82)/10-37/39

TITLE: Determination of Serum Albumin by the Method of Isotope Dilution (Stanovení serumalbuminu metodou isotopového ředění)

PERIODICAL: Chemické Listy, 1958, Vol 52(82), Nr 10, pp 2015-2017 (Czechoslovakia)

ABSTRACT: The determination of small quantities of serum albumin in a medium with a high level of other proteins is very difficult. It is not possible under these circumstances to use physico-chemical methods nor precipitation procedures, since the excess of other protein not involved hinders the determination by these methods. Immunochemical methods have been used exclusively so far, e.g. the determination of serum albumin produced in the in vitro incubation of liver slices. The notable accuracy of this method is offset by the time consuming preparation of e.g. the antisera needed. The isotopic dilution method can be applied to radioactive as well as stable isotopes. This was employed and the preparation of pure material (quantitative yield not essential) achieved by dissolving trichloroacetic acid precipitated

Card 1/4

Determination of Serum Albumin by the Method of Isotope Dilution

protein in organic solvents. This gives a rapid and accurate method suitable for serial analysis. It was used by the authors for a study of the biosynthesis of serum albumin by rat liver slices (fraction of one percent of total protein).

Experimental Reagents and Method. Standard samples of serum albumin were prepared by the Cohn fractionation procedure (checked for homogeneity by paper electrophoresis). A 1% solution in physiological saline (concentration checked by Kjeldahl method) ^{35}S marked radioactive serum albumin was prepared (Ref 5). The preparation used contained 4.8 to 9.6 mg albumin/ml and had a specific activity of 0.4 to 0.5 µc/mg of protein. All the reagents used were of analytical quality. Radioactivity was measured in the precipitated protein on circular filter papers (S and S 602h, 7.1 cm^2) by a bell type Geiger-Müller tube: mass window 4-5 mg/cm^2 (Tesla Vrchlabí) with decadic adaptor.

Card 2/4

Method. To analyse a solution containing serum albumin (1-3 mg) in the presence of excess extraneous proteins,

CZ/8/52(82)/10-37/39

Determination of Serum Albumin by the Method of Isotope Dilution

a radioactive solution of serum albumin (0.1 ml) is added, then sufficient 30% trichloroacetic acid is added to give a final concentration of 5%. After stirring, then standing for 10 mins, the protein is centrifuged off. The supernatant is poured off and the precipitate is mixed in a glass homogenisor with absolute ethanol (2 ml). The solution is re-centrifuged and the supernatant, containing extracted albumin, is separated and kept. Ether (2 ml) is added to it and the solution stirred with a glass rod until the moment the protein begins to flocculate. After 20 mins, the precipitate is centrifuged off and washed again with ether (2 ml). The precipitate is then homogenised in ether, using a glass homogeniser and the sample prepared for measurement of radioactivity on a previously weighed filter. Re-weighing gives the weight of the precipitate and the radioactivity is measured in impulses/min/mg albumin. The results may be calculated from an equation or a calibration curve and the specific activity of the albumin can be derived in the usual manner. Conditions are optimum

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Determination of Serum Albumin by the Method of Isotope Dilution

between 1 mg and 3 mg of albumin in the sample - the accuracy falls off outside this range. It is possible to use less pure protein but the reproducibility is poor. The sensitivity of the method is such that 0.1 mg steps in serum albumin concentration can be determined with + 2% accuracy (1-2 mg) and was used to follow the biosynthesis of serum albumin in vivo in rat liver slices. The drawback of the method is that it requires sufficient albumin to be weighed - the use of a gas phase such as $^{14}CO_2$ would increase sensitivity. There are 1 figure and 6 references, 1 of which is Czech and 5 Western.

ASSOCIATION: Biochemické oddělení, Onkologický ústav, Praha
(Biochemical Division, Oncological Institute, Prague)

SUBMITTED: December 6, 1957

AUTHOR: Hradec, J. CZECH/8-52-11-27/30

TITLE: Biosynthetic Preparation of Labelled Serum Albumin (Biosynthetická příprava značkovaného serumalbuminu)

PERIODICAL: Chemické Listy, 1958, Vol 52, Nr 11, pp 2191 - 2194 (Czechoslovakia)

ABSTRACT: The author describes a method of the biosynthetic preparation of internally ^{35}S labelled protein. It has been found possible to obtain as much as 17% of the radioactivity as albumin as well as further amounts in the other blood plasma fractions. In principle, $N2_2{}^{35}SO_4$ is introduced into yeast protein by adding to the yeast culture medium and the hydrolysate of the yeast protein fed or injected into Wistar rats. Experimental. Yeast cultivation, A culture of the yeast Torulopsis utilis var. maior, was sub-cultured from an agar plate into the liquid culture medium. The culture medium was as follows: glucose (10 g), neutral ammonium phosphate (6 g), KH_2PO_4 (1 g), magnesium chloride (0.21 g),

Card1/8

sodium citrate (1 g) and 0.1 ml. each of 0.84% zinc chloride solution, 0.053% cupric chloride solution and 1.36% ferric ammonium sulphate and the mixture made up to I l with water. To each litre of medium was added malt (5 ml.) and the required amount of radioactive sodium sulphate. The cultivation was carried out in ground glass vessels with sintered glass plate at the end of the air inlet and air drawn through at 28 °C for 48 hours. The dry matter of the yeast was determined gravimetrically after filtering off the media through a G 4 sintered glass filter and drying at 105 °C to content weight.

Experimental animals. Wistar rats (280 - 320 g) were deprived of food and water 24 hours before administering the radioactive material. The material was either given orally in diluted milk or dissolved in physiological solution for intraperitoneal or intravenous administration. The activity of the material was in the range: 0.5 - 1.1 mc. Blood was taken during ether anaesthesia from the heart and the 12-15 ml. of blood added to 3.8% sodium citrate solution (ratio 5:1).

Biosynthetic Preparation of Labelled Serum Albumin

Radioactive Preparations. Sodium sulphate and methionine radioactively labelled with ^{35}S (0.6 - 1.1 mc/mg and 0.58 - 0.68 mc/mg specific activity respectively) were used.

Hydrolysis of Yeast Protein. Yeast protein was first precipitated and then washed with 10% trichloroacetic acid and hydrolysed with ten times its own volume of a mixture of concentrated sulphuric and formic acids (1:1) by refluxing for 16 hours. Protein samples for the determination of sulphur amino-acid content were heated in sealed tubes at 120 °C for the same time. For application to animals, the hydrolysates were evaporated in vacuo, the residue dissolved in physiological solution and freed of humins by centrifuging.

Determination of Cystine and Methionine Content. Hydrolysates were fractionated paper chromatographically with n-butanol/acetic acid/water (4/1/5; v/v). Auto-radiographs of the chromatograms were prepared with X-ray film (Agfa Roentgen Duro) with, on the average, 3-4 weeks' exposure. The auto-radiograms were scanned in a recording

densitometer (Zeiss) and the amounts determined by weighing the areas (on paper) underneath the curves corresponding to the two amino-acids. Apart from 20-25% of the total activity at the start, there were no other radioactive materials except these two amino acids.

Preparative Electrophoresis. Isolation of serum albumin on a preparative scale was carried out in a somewhat modified Flodin and Porath apparatus (Ref 7). Columns (38 x 3 cm) were prepared from dry cellulose powder which had been washed by a series of solvents, then dried at 120 °C. The columns were washed with buffer until the effluent was colourless. Plasma samples (10 - 15 ml.) were added to the moist column and separation carried out with a veronal-citrate-oxalate buffer at pH 8.6 (μ = 0.067) at 600 V for 20-24 hours. On completion of the separation the protein was eluted from the column with buffer and fractions (3 ml.) collected with an elution rate of 0.2 to 0.3 ml./min. The protein content of the fractions was determined using absorption at 280 mμ (Soviet SF_4 spectrophotometer). Qualitative examination of the fractions was

Biosynthetic Preparation of Labelled Serum Albumin

achieved by paper electrophoresis. Determination of radioactive serum albumin in plasma was carried out by a similar method for albumin using an isotope dilution technique.

Results and Discussion. Cultivation of Yeast

The utilisation of isotopes by the yeast depends on the intensity of growth of the yeast and the concentration of the radioactive isotope in the medium. The protein content of the yeast, on which naturally the cystine and methionine content of the culture depends, increases not only absolutely with increasing dry matter content, but also relatively. The lower levels of yeast dry matter protein comprises only 50% of the dry matter, whilst at higher dry matter levels it rises to 75%. At extremely low levels of dry matter the protein content of the culture is markedly high but since the absolute amount of the protein is low there is poor utilisation of the added isotopes. Higher dry matter levels leads to better utilisation of the isotopes added not only because of the larger amounts of protein present but also because the

Biosynthetic Preparation of Labelled Serum Albumin

more intensive growth is accompanied by an increase of sulphur amino-acid content of the yeast protein molecule and the methionine content is directly proportional to the amount of dry matter. The second basic factor, influencing the formation of cystine and methionine from the added sulphate, is the concentration of the marked compound in the cultivation medium. It was found that the optimum yield is obtained at sodium sulphate concentrations of 2-3 mg/100 g. At higher isotope concentrations the utilisation falls even though, of course, this increased concentration results in a proportionally high content of sulphur amino-acids in the yeast protein. Cultivation of yeast at optimal radioactive sulphate concentrations (2-3 mg/100 g) and at a sufficient growth rate (dry matter 8 g/l. or more) guarantees, according to the author's experience, an incorporation of 96-99% of the added sulphate in the yeast.

Albumin biosynthesis. Results are given of the amount of marked serum albumin formed at various times after the supplying of marked yeast per os or radioactive methionine per os or intravenously. In all cases, two peaks occur

Biosynthetic Preparation of Labelled Serum Albumin

in the curves, the first corresponding to the formation of the S - S bonds of the marked amino-acids and the second the maximum incorporation of the amino-acid. The most suitable times for the taking of blood for serum albumin are given for the various methods of application as are the yields of radioactivity. The results for the yeast hydrolysate do not differ basically from those for pure methionine. Of course, it is necessary to take into account the amount of marked amino-acid formed which is destroyed by hydrolysis (20-25%). This drawback must be weighed against the advantage of having the amino-acids in the biologically active L-form.

Isolation of Serum Albumin. The authors claim that they are able to isolate about 75% of the serum albumin present in a pure form with one electrophoresis run. The remaining serum albumin can be obtained (giving 95% yield) by repeated electrophoresis of the fraction containing not only albumin but α_1-globulin. The fractions containing pure albumin are combined, dialysed against distilled water and the dialysed protein freeze-dried. The pure native serum albumin so obtained, had a specific activity

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of 0.3 - 0.4 µc/mg when yeast was given per os and a specific activity of 0.5 - 0.7 µc/mg when yeast protein hydrolysate or synthetic methionine were given. There are 3 figures, 1 table and 9 references, 2 of which are Czech, 4 English, 2 German and 1 French.

ASSOCIATION: Biochemické oddělení, Onkologický ústav, Praha (Biochemistry Division, Oncological Institute, Prague)

SUBMITTED: December 6, 1957

This is an abridged translation.

Card 8/8

EXCERPTA MEDICA Sec 5 Vol 12/8 General Path. Aug 59

2134. NATURE OF THE CARCINOGENIC SUBSTANCE IN EGG-YOLKS - Hradec J. Dept. of Biochem., Oncol. Inst., Prague - NATURE (Lond.) 1958, 182/4627 (52-53)

A pure material was extracted from the unsaponifiable portion of fresh tissues or frozen-dried organs that accelerated experimental tumour growth, and stimulated the incorporation of methionine-S^{35} into Ehrlich ascites tumour proteins. More was present in the organs of tumour-bearing animals. A substance with identical physical properties, including chromatographic and absorption spectral behaviour, was obtained from the unsaponifiable portion of egg-yolks, known to have carcinogenic activity in mice (Szepsenwol, Proc. Soc. exp. Biol. (N.Y.) 1957, 96/2, 332; see also Exc. Med., Path. 1958, abstr. no. 2576). It is believed that the growth-promoting factor in egg-yolk and the tumour-enhancing factor from tissues are identical.

Sommers - Boston, Mass. (V, 2, 16)

HRADEC, Jan

The present status of the biochemical diagnosis of cancer. Cesk. gyn. 24[38] no.6:460-463 July 1959

1. Biochem. odd (prednosta MUDr. J. Hradec) Onkologickeho ustavu v Praze, reditel MUDr. Frantisek Vadura.
(NEOPLASMS, diag.)

EXCERPTA MEDICA Sec 5 Vol 12/9 General Path. Sept 59

2565. THE EFFECT OF LYOPHILIZED TISSUES ON THE TRANSPLANTATION AND GROWTH OF WALKER-256 CARCINOMAS IN RATS - Einfluss der Applikation von lyophilisierten Geweben auf Verimpfung und Wachstum des Walker 256-Carcinoms der Ratten - Hradec J., Dušek Z., Trojan K. and Ptáček M. Biochem. Abt., Onkol. Inst., Prag - Z. KREBSFORSCH. 1958, 62/4 (387-396) Graphs 7 Tables 1

Previous experiments by Casey have shown that under certain circumstances lyophilized tissues promote the transplantation and growth of tumours while retarding them under other circumstances. According to Casey, this effect depends on species-specific XYZ factors. A study was made of the effect of lyophilized organs from normal (liver and spleen) and tumorous rats (Walker carcinoma liver, spleen, kidney and lungs). Each rat received 3 i.p. injections of up to 1 ml. each. Ten days after the last injection, Walker carcinomas were transplanted in each rat. The experiments were performed on a total of 2,100 Wistar rats, divided into groups of 22 to 24 animals. Each case showed promotion or retardation of growth or even resistance to the tumour transplantation. The effect depended on the amount of tissue applied. Only lyophilized lung tissue could not induce resistance. Growth retardation was stronger after the application of normal tissues, growth promotion after the application of lyophilized tissue from tumorous rats. These effects were caused by 2 separate factors. An immunologically active mechanism in the process is improbable. It is assumed that separation of the promoting and retarding factors by dialysis is possible. Further experiments are being carried out with the aim of explaining the mechanism of action.

Juhász - Budapest (V, 16)

EXCERPTA MEDICA Sec 14 Vol 7/8 Cancer August 58

9. Miscellaneous

3047. **Nature of the carcinogenic substance in egg-yolks** HRABĚ J. Dept. of Biochem., Oncol. Inst., Prague *Nature (Lond.)* 1958, 182 4627 352–53

A pure material was extracted from the unsaponifiable portion of fresh tissues or frozen-dried organs that accelerated experimental tumour growth, and stimulated the incorporation of methionine-S^{35} into Ehrlich ascites tumour proteins. More was present in the organs of tumour-bearing animals. A substance with identical physical properties, including chromatographic and absorption spectral behaviour, was obtained from the unsaponifiable portion of egg-yolks known to have carcinogenic activity in mice (SZLEPSENWOL *Proc. Soc. exp. Biol. (N.Y.)* 1957, 96 2, 332; see also *Exc. Med., Cancer* 1958, abstr. no 3275). It is believed that the growth-promoting factor in egg-yolk and the tumour-enhancing factor from tissues are identical.

Sommers – Boston, Mass.

DUSEK, Z.; HRADEC, J.

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